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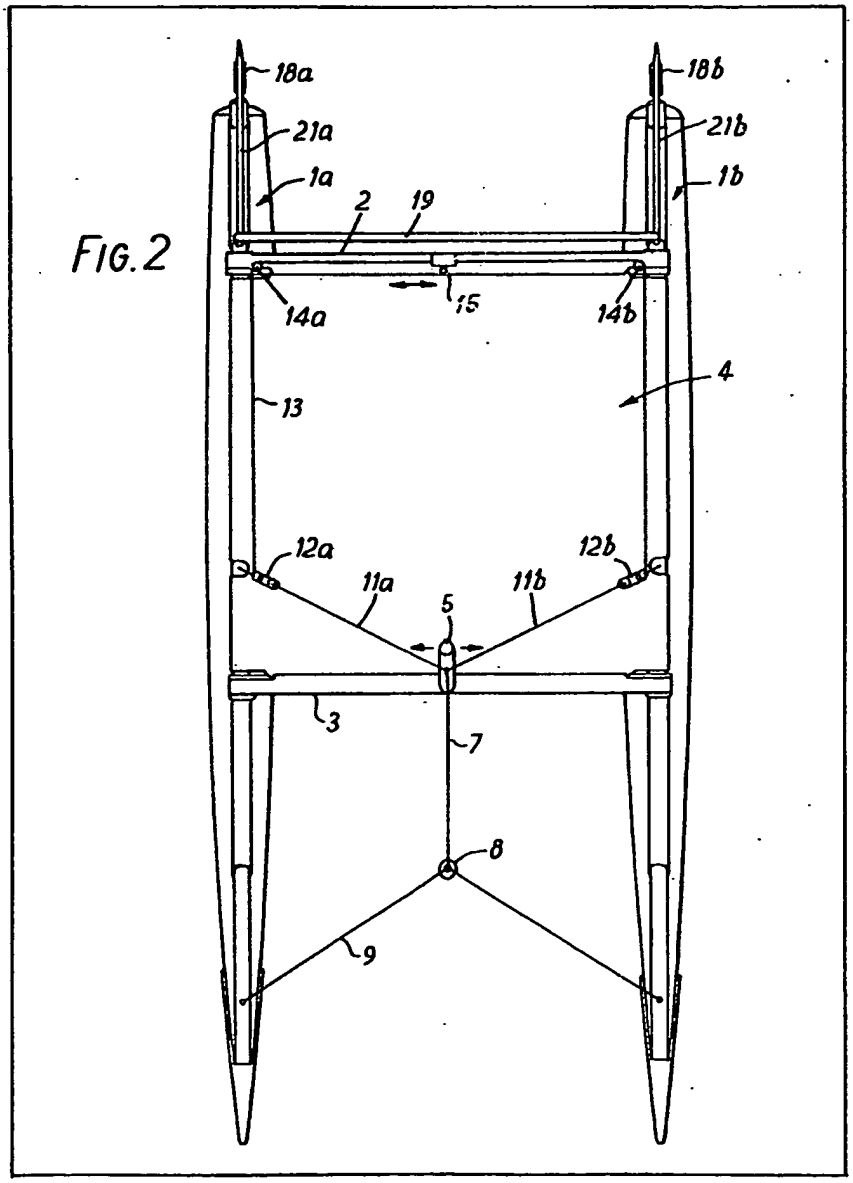
(54) Rigging for a tiltable mast

(57) A sailing boat has a hull structure 1 on which a mast 5 is stepped by a ball and socket joint. The mast 5 is stayed by a forestay 7, 8, 9 and a pair of lateral shrouds 11 which include block and tackle assemblies 12 interconnected by a line 13 rove through both assemblies and passing through a point accessible to the sailor. By moving the line 13 along its path in a selected direction, one assembly 11 is shortened and the other lengthened. The mast 5 is thus laterally tilted as required.

FIG. 2



The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

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FIG. 1

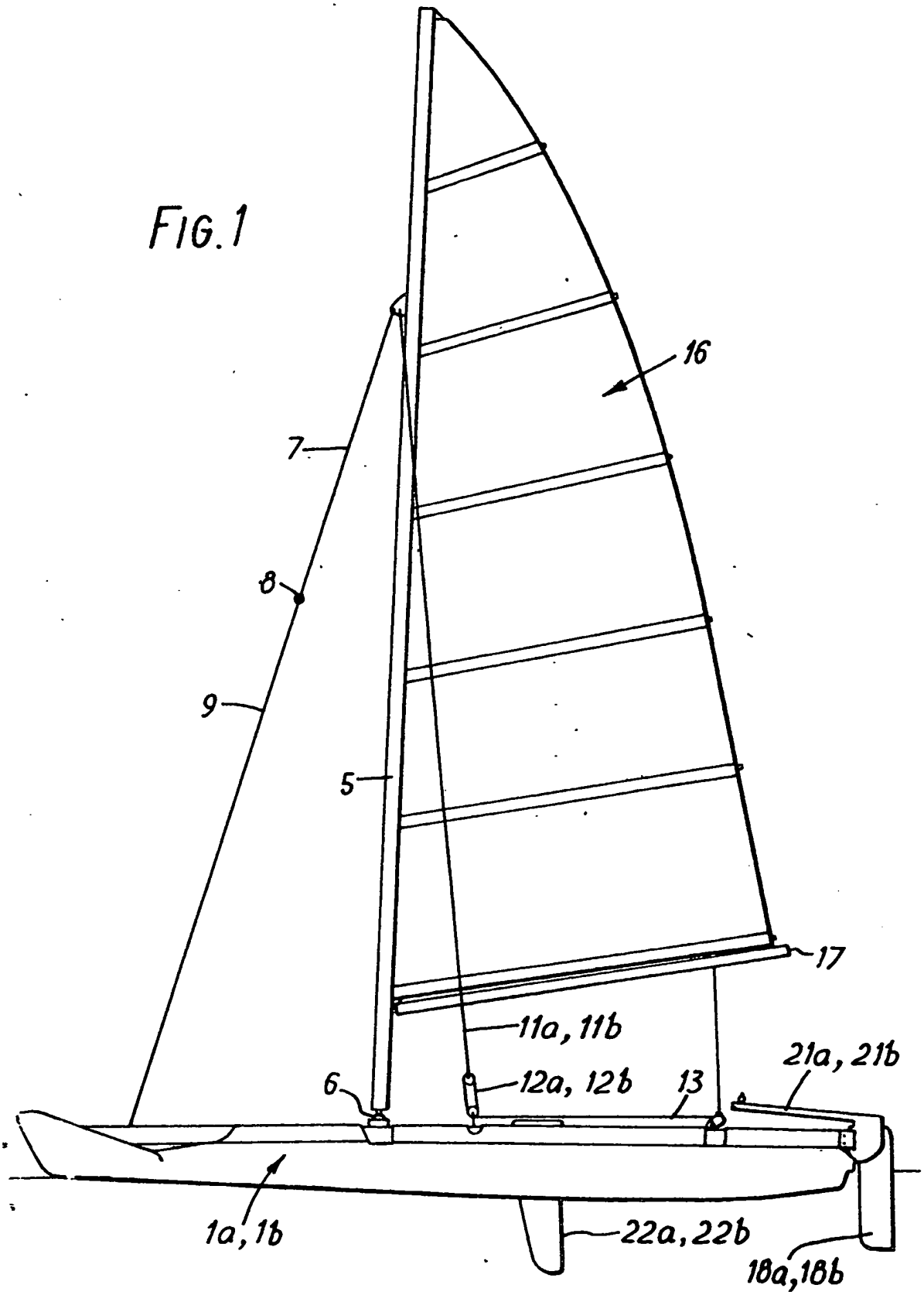
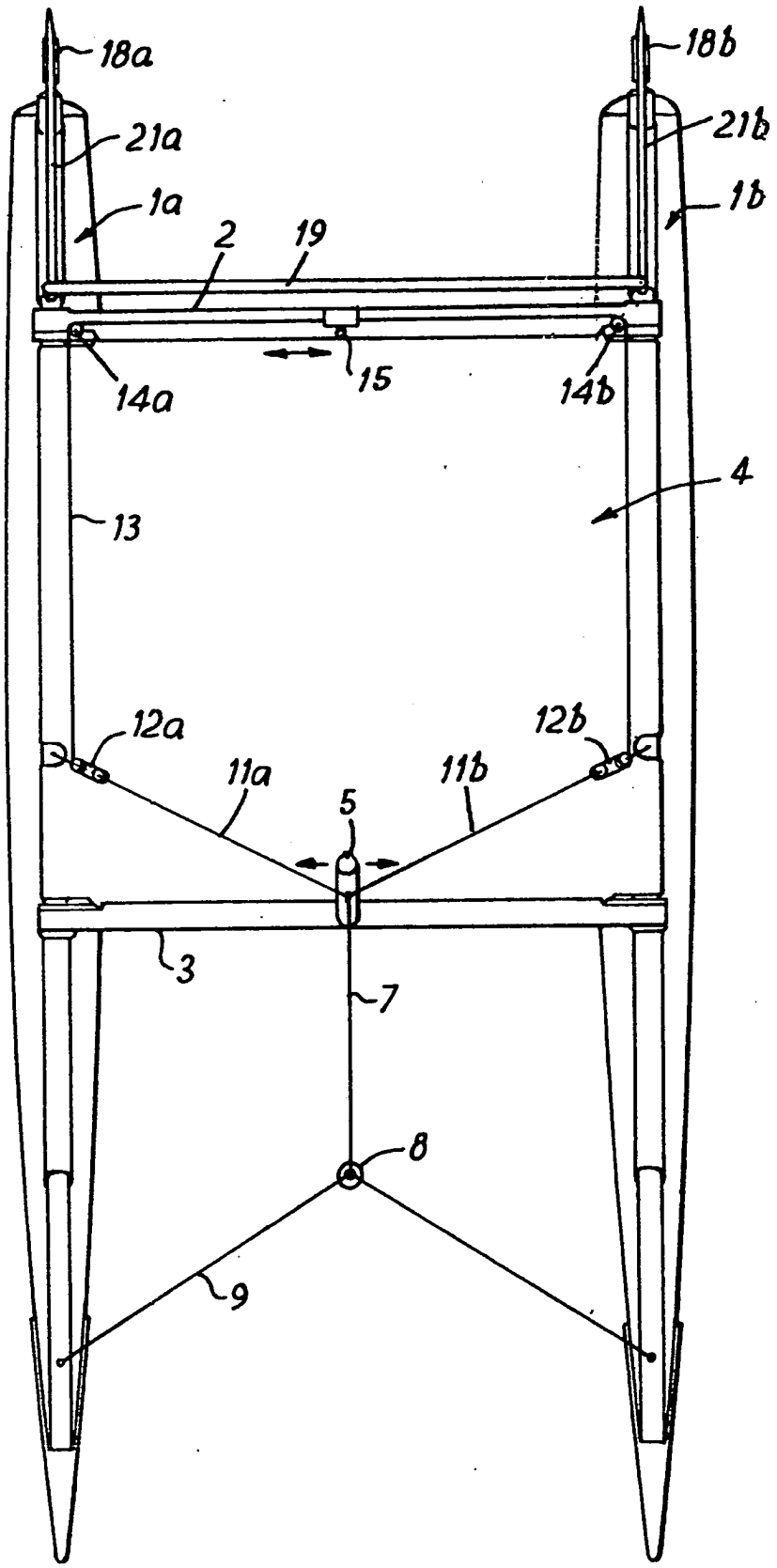


FIG. 2



SPECIFICATION

Sailing boats

This invention relates to sailing boats.

According to the present invention there is provided a sailing boat having a sail-supporting mast the lateral tilt of which is adjustable whenever required during sailing.

Conveniently, the mast is laterally stayed by shrouds which include means of selectively shortening one shroud and correspondingly lengthening the other. Advantageously, each shroud includes a block and tackle around which is rove a line passing from one block and tackle to the other through a position which is accessible to the sailor and which preferably includes a clamping device.

An embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:—

Figure 1 is a side-elevation of a catamaran and Figure 2 is a plan-view of the catamaran shown in Figure 1.

The drawings show a catamaran having twin hulls *1a* and *1b* joined by two cross-members 2 and 3 and having a trampoline deck 4 attached to the hulls and cross-members.

A mast 5 is stepped by means of a ball and socket support 6 on the forward cross-member 3. An upper fore-stay 7 is attached at one end to the mast and at its other end to a pulley block 8. A lower fore-stay 9 passes from one hull to the other around the pulley of the pulley block 8.

Two shroud-lines 11*a* and 11*b* are fixed to the mast at their upper ends and each is fixed at its lower end to the upper block of a respective six-rope block and tackle forming the lower part of the respective shroud 12*a*, 12*b*. A line 13 is fixed at one end to the upper block of the block and tackle 12a, passes around pulleys 14*a* and 14*b*, mounted on the respective hulls, then around the pulleys of the block and tackle 12*b* and its other end is secured to the upper block of the block and tackle 12*b*. The lower block of each block and tackle 12*a* and 12*b* is secured to the respective hulls 1*a* and 1*b*. A clamping device 15 allows the line to be clamped at any required position of the line to the aft cross-member 2.

The mast 5 carries a sail 16 and a boom 17 in the conventional manner. A rudder 18*a*, 18*b* is mounted at the stern end of each respective hull 1*a* and 1*b*. A bar 19 joins the tillers 21*a* and 21*b* of the respective rudders 18*a* and 18*b*. Each hull is fitted with a retractable dagger-board 22*a* and 22*b*, respectively.

In operation, the lateral tilt of the mast can be adjusted during sailing. For this, the clamping device 15 is released and the line 13 is drawn around the pulleys 14*a* and 14*b* in one or the other direction. The mast tilts on the ball and socket support 6 to the side from which the line 13 is drawn. By tilting the mast into the wind the mast can be more nearly upright when the catamaran is heeling than would otherwise be the case. As a result, spillage of wind from the sail can be reduced and by tilting the mast into the wind some lift can be exerted on the catamaran thereby reducing the area of hull-surface in contact with water and thereby reducing the resistance to forward motion.

In a modification (not shown) the pulleys 14*a* and 14*b* are replaced by a single pulley adjacent the clamping device 15. The line 13 passes directly from the lower block of each block and tackle 12a, 12b to the pulley and a clamping device in the centre of the aft cross-member 2. The pulley may then be resiliently biassed in the aft direction to provide the required tension for the line 13 and thus for the shrouds.

CLAIMS

1. A sailing boat comprising a hull structure a mast adjustably mounted on the hull structure and means operable during sailing of the boat for adjusting lateral tilt of the mast relative to the boat.

2. A sailing boat according to claim 1 having shrouds laterally staying in the mast, from each side, in which the adjusting means comprise means for selectively shortening one of the shrouds and correspondingly lengthening the other of the shrouds.

3. A sailing boat according to claim 2, in which each said shroud includes a block and tackle means comprising a pair of pulley blocks and a line extending along a path interconnecting the pairs of pulley blocks and being rove around the pulley blocks of each pair, the said path including a portion accessible to the user of the boat.

4. A sailing boat according to claim 3 and including releasable clamping means for the line at the accessible portion.

5. A sailing boat according to claim 3 or 4 and including a ball and socket joint mounting the mast on the hull structure and forestay means interconnecting an upper part of the mast with a foreward part of the hull structure.

6. A sailing boat substantially as hereinbefore described with reference to the accompanying drawings.

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